

### ABSTRACT

A compressed air supply system for an air drying device such as a blow-off air knife or compressed air manifold with nozzles directed at articles passing on a conveyor therebeneath is provided with a recirculation loop. An adjustably variable portion of the compressed air emanating from the outlet duct of the air compressor is diverted from the air delivery inlet duct leading to the air blow-off device and is a recirculated to the inlet of the air compressor, where it is mixed with ambient air at ambient temperature and pressure. The blower system recirculates between about one percent and eighty percent of the total air flow emanating from the compressor outlet duct to produce a fully adjustable total air temperature rise of up to twenty-five degrees Fahrenheit for each one pound per square inch of blower pressure above ambient air pressure.